

	<p>HERO™ vibration controller incl. signal conditioners</p>	<h2>~ Typical DUTs</h2> <ul style="list-style-type: none"> • gyro transducers (angular velocity) • Inertial Measurement Units (IMU) • rotation rate measuring systems <p>* DUT = Device Under Test</p>
	<p>CS Q-LEAP™ software</p> <ul style="list-style-type: none"> • calibration by sine excitation 	
	<p>DRE-01 dynamic rotation exciter with internal reference standard BN-43, APS 0109 zero position controller and power amplifier PA 500 DM</p>	

✓ Standards

- ISO 17025: General requirements for the competence of testing and calibration laboratories

★ Key features



Calibration system for dynamic angular velocity in the frequency range 1 Hz ... 200 Hz



Traceable to PTB (German National Metrology Laboratory)



Calibration of angular velocity sensors and measurement systems



Integrated sensor database



Integrated software for the generation of calibration certificates (print, PDF,...)
Easy data exchange with applications like ERP systems or measuring equipment databases



Torque, max. (sine peak) ¹⁾	0.95 Nm
Frequency range ²⁾	1 Hz...200 Hz - traceable range for calibration > 200 Hz... 5 kHz - extended range for testing purposes
Angle, max. (peak - peak) ³⁾	30°
Angular velocity, max. (sine peak) ¹⁾	5 300 °/s
Angular acceleration, max. (sine peak) ¹⁾	2 500 000 °/s ²
Mass moment of inertia of bare table	22 kg · mm ²
Mass moment of inertia of payload, max.	400 kg · mm ²
Payload, max.	0.5 kg
Centrifugal force due to unbalance, max.	1.5 N

Frequency range		Weight of DUT	Expanded measurement uncertainty ⁴⁾ magnitude ⁵⁾ / phase ⁶⁾	Excitation amplitude (Peak value)	
from	to			min.	max. ⁷⁾ (Angle, rate of rotation, angular acceleration)
1 Hz	200 Hz	up to 200 g	1.5 % / 1.5°	1.0 °/s	Rotation angle: 30° Angular velocity: 5300 °/s Angular acceleration: 2.5 E ⁶ °/s ²

All specifications are at a temperature of +23 °C (±2 °C) and a relative humidity of 30 %... 75 % unless otherwise specified.

- 1) Intervals of 5 minutes
- 2) Frequency range without mounting table
Frequency range with mounting: 1 Hz... 4.5 kHz; with internal reference standard: 1 Hz... 2 kHz
- 3) Recommended operation range peak-peak; mechanical stops at 40° peak-peak
- 4) Determined according to GUM (JCGM 100 „Evaluation of measurement data - Guide to the expression of uncertainty in measurement“) with $k = 2$ (coverage factor) for the best possible device under test (DUT). Other devices that are not assumed as ideal must be evaluated with individual contributions.
- 5) Data applicable to electric sensor signals $\geq (1 \text{ mV or } 1 \text{ pC})$
- 6) Data only valid in conjunction with the PHASE option
- 7) Maximum excitation without test object

